

Application No.: 09/550,686  
Attorney Docket No. 2000-0026

### **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### **Listing of Claims:**

1. (currently amended) A method for indexing voice mail messages, comprising:

receiving one or more voice mail messages from one or more callers;

~~processing speech signals from each of the voice mail messages with one or more caller-speaker models;~~

determining the identity of each of the one or more callers in each of the one or more voice mail messages by comparing the speech signals from each of the voice mail messages with one or more caller speaker models;

tagging each of the voice mail messages with the respective identity of the caller for each respective voice mail message; and

when the identity of the caller of a voice mail message cannot be determined:

tagging that voice mail message as unknown; and

receiving an identity of the unknown message caller from a speaker label from a voice mail subscriber ~~for a voice mail message tagged as unknown, wherein the speaker label is the identity of the speaker of the voice mail message.~~

2. (canceled)

3. (previously presented ) The method of claim 1, wherein the speaker label provided by the voice mail subscriber is used to create a storage folder for that specific speaker of the voice mail message.

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4. (original) The method of claim 1, wherein the speaker models are created from one or more voice mail messages left by the same caller.
5. (original) The method of claim 1, wherein speaker models are created using acoustic features extracted from the voice mail message, the acoustic features extracted using speaker recognition techniques.
6. (canceled)
7. (canceled)
8. (original) The method of claim 6, wherein the voice mail message tagged as unknown is used to adapt a previously created speaker model.
9. (original) The method of claim 1, wherein the step of determining the identity of the caller in each of the one or more voice mail message includes the substep of:  
    using automatic number identification to assist in determining the caller's identity.
10. (original) The method of claim 1, wherein the step of determining the identity of each of the one or more callers includes the substep of:  
    using speech recognition techniques to extract caller identity information from the voice mail message.
- 11 - 20 (cancelled)

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21. (new) A method for identifying new speakers in a voice mail system for one or more voice mail subscribers, the method comprising:

determining that a group of speaker models are unable to identify the speaker of a voice mail message;

receiving from a voice mail subscriber speaker identification information for the voice mail message;

using the voice mail message and future voice messages from the speaker to generate a new speaker model for the speaker of the voice mail message as identified by the voice mail subscriber; and

adding the generated speaker model to the group of speaker models for identifying speakers of voice mail messages based on the comparison of the voice mail message with existing speaker models.

22. (new) The method of claim 21, wherein receiving from a voice mail subscriber speaker identification information for the voice mail message further comprises:

presenting the voice mail from the unidentifiable speaker to the voice mail subscriber;

prompting the voice mail subscriber to identify the speaker of the voice mail message;

and

receiving the identification of the speaker from the voice mail subscriber.

23. (new) The method of claim 21, wherein using the voice mail message and future voice messages from the speaker to generate a new speaker model for the speaker of the voice mail message as identified by the voice mail subscriber further comprises:

if, after the voice mail subscriber identifies the speaker of the voice mail message, a speaker models exists for the identified speaker:

modifying the existing speaker model by using the voice mail message; and

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if, after the voice mail subscriber identifies the speaker of the voice mail message, a speaker models does not yet exist for the identified speaker:

creating a new speaker model for the identified speaker; and

adding the modified speaker model or the new speaker model to the group of speaker models.

24. (new) A system for processing voice mail messages, the system comprising:

means for receiving one or more voice mail messages;

means for determining the identity of a speaker of each of the one or more voice mail messages by comparing the speech signals from each of the voice mail messages with a group of speaker models;

means for tagging each of the voice mail messages with the respective identity of the speaker for each respective voice mail message; and

means for, when the identity of the speaker of a voice mail message cannot be determined, tagging that voice mail message as unknown and receiving an identity of the unknown message caller from a voice mail subscriber.

25. (new) A system for identifying new speakers in a voice mail system for one or more voice mail subscribers, the system comprising:

means for determining that a group of speaker models are unable to identify the speaker of a voice mail message;

means for receiving from a voice mail subscriber speaker identification information for the voice mail message;

means for using the voice mail message and future voice messages from the speaker to generate a new speaker model for the speaker of the voice mail message as identified by the voice mail subscriber; and

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means for adding the generated speaker model to the group of speaker models for identifying speakers of voice mail messages based on the comparison of the voice mail message with existing speaker models.